

KL-8100

User's Guide



CASIO®

Important Safety Precautions

Note of the following safety precautions before using the label printer for the first time. Keep these safety precautions and operating instructions on hand for future reference.

About safety precaution symbols

The following symbols are used in this manual and on the product itself to alert you and others to the risk of personal and material injury.



Warning

This symbol indicates an item that can result in death or serious personal injury if ignored.



Caution

This symbol indicates an item that can result in serious personal injury or material damage if ignored.

Examples



A triangle indicates something you should be careful about. This symbol warns against electrical shock.



A circle indicates something you should not do. This symbol indicates you should not try to take something apart.



A black circle indicates something you must do. This symbol indicates you should unplug something.



Warning

Power supply and voltage



- Use only a power source whose output matches the rating marked on the plate on the bottom of the label printer. Also, avoid plugging too many appliances into the same extension cord. The wrong voltage or overloading of an AC outlet creates the danger of fire and electrical shock.

Serious malfunction



- Continued use of the unit when smoke or a strange odor is coming from it creates the danger of electrical shock. Immediately turn power off and unplug the power cord from the wall outlet. Request servicing from your original dealer.

AC adaptor



- Do not allow the power cord to become damaged or broken, and never modify, over bend, twist, or pull it. Never place heavy objects on the power cord, and never expose it to direct heat. A damaged power cord creates the danger of fire and electrical shock.



- Use only the AC adaptor specified for this unit. Use of another AC adaptor creates the danger of fire and electrical shock.



- Should the power cord become seriously damaged (internal wiring is exposed or cut), request servicing from your original dealer. Use of a seriously damaged power cord creates the danger of fire and electrical shock.



- Never touch the AC adaptor when your hands are wet. Doing so creates the danger of electrical shock.

Never try to take the unit apart



- Never try to take the unit apart or modify it in any way. Doing so creates the danger of electrical shock, burn injury, or other personal injury.

Packaging



- Keep the plastic bag that the unit comes in out of the reach of small children. Plastic bags create the danger of suffocation for small children.

Avoid dropping



- Should the unit ever become damaged by falling down, immediately turn off power and unplug the power cord from the wall socket. Request servicing from your original dealer. Use of a damaged unit creates the danger of fire and electrical shock.

Batteries



- Never charge batteries, try to take batteries apart, or allow batteries to become shorted. Never expose batteries to direct heat or dispose of them by incineration.



Caution

AC Adaptor



- Do not leave the power cord near stoves or other sources of intense heat. Doing so can melt power cord insulation and create the danger of fire and electrical shock.
- When unplugging the power cord from the wall socket, grasp the plug. Never pull on the cord itself. Doing so can damage the power cord and create the danger of fire and electrical shock.
- Whenever leaving the unit unattended for long periods, be sure to unplug it from the wall socket.
- Whenever moving the unit, be sure to unplug it from the wall socket. Leaving the unit plugged in when it is being moved can result in damage to the power cord and create the danger of fire and electrical shock.
- Whenever cleaning the unit, be sure to unplug it from the wall socket.
- When you are through using the unit, use its power switch to turn it off and then unplug it from the wall socket.

Avoid unstable areas



- Never place the unit on a wobbly table or a high shelf. Doing so can cause it to fall, resulting in personal injury.

Water and other foreign matter



- Never allow coffee, juice, or other drinks, or flower vases to spill on the unit. Liquid spilled on the unit creates the danger of fire and electrical shock. Should liquid ever spill onto the unit, immediately turn off power and unplug the power cord from the wall socket. Request servicing from your original dealer.

Location



- Avoid leaving the unit in areas subjected to high humidity and large amounts of dust. Such conditions create the danger of fire and electrical shock.



- Avoid leaving the unit on a kitchen table, next to a humidifier, or in any other area where it might come into contact with oil vapors or steam. Such conditions create the danger of fire and electrical shock.



- Never place heavy objects on the unit. Doing so creates the danger of the unit falling, resulting in personal injury.

Batteries



- Misuse of batteries can cause them to leak acid that can cause damage to nearby items and creates the possibility of personal injury.



- Be sure that the plus (+) and minus (–) sides of each battery are facing correctly.



- Never mix batteries of different types.



- Never leave dead batteries in KL-8100.



- Remove the batteries if you do not plan to use KL-8100 for a long time.



- Use only the battery type specified for this label printer in this manual.

Memory



- Always keep separate written copies of any information you store in the memory of this label printer. Data stored in memory can be unexpectedly lost due to malfunction, repair, dead battery, etc.

Introduction

Congratulations on your selection of this product. This label printer makes it possible for you to print adhesive labels for a wide variety of applications, such as: name tags, cassette tape labels, floppy disks, binders, and other applications.

You can produce attractive, original labels thanks to such features as:

- Variable tape sizes (6mm, 9mm, 12mm, 18mm, 24mm)
- 10 fonts
- 5 character styles (normal, bold, outline, shadow, raised)
- Various font effects
- Bar code printing
- Auto numbering
- Text memory
- Preset formats and preset layouts

You can even store data in memory for instant recall when you need it.

Important!

- Contact a nearby dealer whenever you require servicing.
- Note that the manufacturer shall not be held liable for any loss or claims by third parties which may arise out of the use of this product.
- Note that the manufacturer shall not be held liable for any damages incurred as a result of data loss caused by malfunctions, repairs, or interruption of power supply.
- It is up to the user to keep backup records of important data.
- Keep this manual on hand for future reference.

Quick Reference

Though your label printer is packed with powerful features and functions, it is also designed to be easy to setup and use. The following procedures tell you how to set up the label printer and start printing labels right away using preset (auto) layouts. As you become more experienced, you can use the more sophisticated settings and operations described in detail in the other sections of this manual to add even more creativity and originality to your labels.

Getting Ready

1. Connect the AC adaptor to the label printer (page E-6).
2. Load a tape cartridge (page E-7).
3. Turn on power (page E-6).
4. Reset the memory if necessary (page E-6).
5. Use the SET UP menu (page E-7) to make basic settings and to produce a demo print if you want.

Creating a Label Using an Preset (Auto) Layout (page E-19)

Example: To create a VHS video cassette label for the title "Label Printer" to appear as follows.

1. Turn on the label printer, and clear all text from its screen.
2. Press **PRESETS** to display the PRESETS menu.
3. Use **^** and **v** to move the highlighting to "LAYOUT" and then press **SET**.
4. Use **^** and **v** to move the highlighting to "NEW" and then press **SET**.
5. Use **^** and **v** to move the highlighting to "VIDEO" and then press **SET**.
6. Use **^** and **v** to move the highlighting to "VHS" and then press **SET**.
7. Use **<** and **>** to move the highlighting to <number> and then press **SET**.
8. Input the text you want to include in each block, and then press **SET** to advance to the next block.
9. Specify the print direction (page E-17), and either mirror or normal printing (page E-17).
10. After making the settings you want, press **SET**.
11. Use **^** and **v** to move the highlighting to "PRINT" and then press **SET** to execute it.
12. After printing, you can store your newly created label in memory.

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Part 1 Getting Acquainted

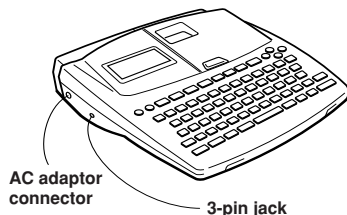
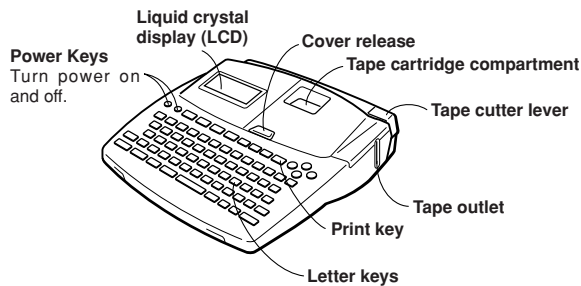
This part of the manual provides you with important information you need to know in order to use the label printer to its full potential. Be sure to read it carefully before using the label printer for the first time.

Important Precautions

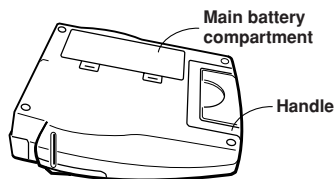
- Keep your label printer out of areas subject to temperature extremes, moisture and direct sunlight. The recommended temperature range is 10° to 35°C (50° to 95°F).
- Don't let coffee, juice or other liquids splash onto the label printer.
- Never let paper clips, pins or other foreign objects get into the tape outlet slot or printer of the label printer.
- Do not pile heavy objects on top of the label printer.
- Never try to take the label printer apart or attempt your own maintenance.
- Do not drop your label printer and avoid strong impact.
- Do not pull on the tape or try to force it back into the label printer.
- Never operate the tape cutter lever when a tape cartridge is not loaded in the label printer. Doing so can damage the cutter blade.
- Never touch the printer head with your fingers.
- Take care to avoid applying too much pressure to the tape cutter lever. Doing so can damage it.
- Do not use benzine, thinner, or other volatile chemicals to clean the exterior of the label printer. Use a soft, dry cloth or a cloth dampened in a weak solution of a mild, neutral detergent and water. Wring the cloth out until all excess moisture is removed.
- A dirty printer head can cause printing to become smudged. When this happens, clean off the printer head by wiping it with a cotton swab moistened with alcohol (page E-24).
- Use of the label printer next to a television or radio may interfere with reception.

General Guide

Front

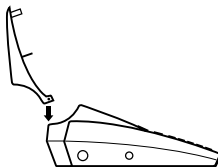


Bottom



Replacing the Cover if it Comes Off

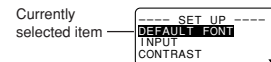
If the cover comes off, replace it as shown in the illustration nearby. Take care to avoid damaging the tabs and hinges when installing the cover.



Label Printer Menus

Label printer operation is designed to be as simple as possible, thanks to on-screen menus that you can use to select the settings you need. Each menu is described in detail in the sections that follow in this manual, but note the following general points when using them.

- The item that is highlighted in a menu is the one that is currently selected.



- Use **^** and **v** to move the highlighting up and down and change the selected item.
- Press **SET** to execute the highlighted item, or **ESC** to exit the displayed menu (and return to the previous menu or screen) without selecting anything.
- When you press **SET** to execute a menu item, the label printer either moves on to the next menu, or it executes the selected function and returns to the text input screen that you started from.

Part 2 Getting Ready

This part of the manual tells you how to load and replace batteries, load the tape cartridge, and perform other basic setups for the label printer.

Important! Be sure to read this section before attempting to use the label printer.

Power Supply

The Label Printer can be powered by a specified AC adaptor (AD-A12070) or eight AA-size alkaline batteries.

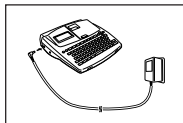
AC Adaptor

Note the following important precautions when using an AC adaptor to power your label printer.

- Use only specified CASIO AD-A12070 AC adaptor, and make sure the adaptor has the same voltage rating as the household current in your area. Using a wrong adaptor can damage your label printer.
- Be sure to turn the label printer off before you connect the adaptor. Do not turn power on until the adaptor is connected to the label printer and plugged into an AC outlet.

To connect the AC adaptor

Remove the AC adaptor connector cover, and connect the adaptor to the label printer as illustrated below. Plug the other end into a standard household AC outlet.



After you finish using the label printer, turn it off and disconnect the AC adaptor.

- Be sure to grasp the plug of the AC adaptor cord when disconnecting it. Never pull on the cord.

Loading/Replacing Batteries

A handy low battery power indicator lets you know when battery power is getting too low for proper operation. The message LOW BATTERY or REPLACE BATTERIES appears on the display if battery power is low when you perform any of the following operations.

- Switching power on
- Executing a print operation
- Executing a tape feed operation

You should still be able to perform some Label Printer operations, but some power intensive operations (like printing or tape feed) may become impossible if battery power is too low. In any case, you should replace batteries as soon as possible or switch to the AC adaptor as soon as possible after the LOW BATTERY message appears.

Important!

Batteries can burst or leak and damage your unit if you use them the wrong way. Note the following important points.

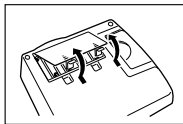
- Be sure that the plus (+) and minus (–) sides of each battery are facing correctly.
- Never mix batteries of different types
- Never leave dead batteries in the battery compartment.
- Remove the batteries if you do not plan to use the unit for a long time.
- Replace the main battery in accordance with the battery life marked on the side of the battery.
- Have the back-up battery replaced by the date noted on the sticker on the back of the label printer.

Warning!

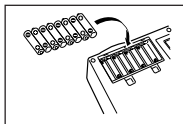
- Never recharge the batteries you use with this unit.
- Do not expose batteries to direct heat, do not short circuit them, and do not try to take them apart.
- **Keep batteries out of the reach of small children. If swallowed, consult with a physician immediately.**
- Low battery power is indicated by poor print quality or power switching off while printing is in progress.

Loading/Replacing the main batteries

1. Switch power off.
- If you are using the AC adaptor to power the unit, you should also unplug the adaptor from the Label Printer.
2. Open the battery compartment cover on the back of the Label Printer by sliding it in the direction indicated by the arrow.



3. If you are replacing batteries, remove all eight of the old batteries.



4. Load a set of eight new batteries into the battery compartment, making sure that their positive (+) and negative (–) ends are facing in the correct directions.
5. Replace the battery compartment cover.

Turning Power On and Off

Press **ON** to turn power on, and **OFF** to turn power off.

Important! If you are using the label printer for the first time, you should reset it first.

Power On Recall Function

Whenever you turn power off, any input that is on the display is automatically stored in memory. Then the next time you turn on power, the message "[SET] TO RECALL" appears on the display. Pressing **SET** when this message is on the display recalls the text that was on the screen when you last turned off power.

- Pressing any key besides **SET**, **FUNC**, **SHIFT** or **CODE** clears the text from memory.

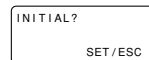
Resetting the Memory

You should reset the memory of the label printer before using it for the first time, after you have not used it for a long time, or if nothing happens when you turn power on.

Important! Resetting label printer memory clears its memory of all input data.

To reset the memory

1. Make sure that label printer power is off.
2. While holding down the **PRINT** and **ESC** keys, press **ON** to turn power on.



3. Press **SET** to initialize the label printer or **ESC** to abort the reset operation without initializing anything.
- See "Initial Settings" on page E-24 for information on the initial default settings of the label printer following the reset operation.
- You have to reset the Label Printer if you want to change the on-screen message language. Press **RESET** and then perform the procedure performed under Message Language.

Auto Power Off Function

If you do not perform any key operation for about six minutes, the label printer automatically turns power off. To restore power, press **ON**.

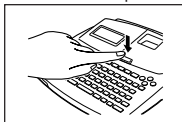
Tape Cartridges

Use the procedures described below to load a tape cartridge into the label printer. The label printer automatically detects what size tape is loaded.

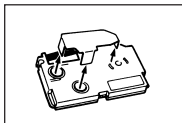
Important! Never try to push the tape back into the cassette. Once tape is out of the cassette, there is no way to wind it back in. Trying to do so can cause operational problems with the label printer.

To load a tape cartridge

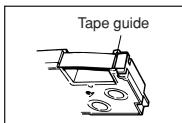
1. Make sure the label printer is turned off.
2. Press the cover release and open the cover.



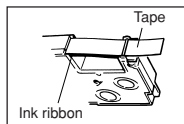
- If there is a cartridge already in the label printer, remove it by grasping the cartridge on both sides with your thumb and forefinger, and lift straight up.
3. Remove the stopper from a new tape cartridge and check to see that the tape is ready to use.



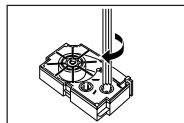
4. Check to make sure that the end of the tape is not bent.
- If the end of the tape is bent, use scissors to cut off the bent portion.
5. Make sure that the tape is under the tape guide and that it is not bent or twisted.



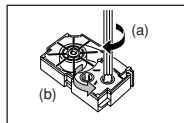
- Make sure the end of the tape is passing through the tape guide. If it isn't, pass the end of the tape through the tape guide as shown in the illustration.
6. Pull out about 3cm (1¹/₈") of tape.



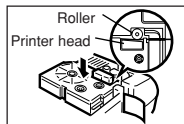
- Never try to force tape back into the cartridge once it is pulled out.
 - Do not pull on the tape too hard. Doing so can break the ink ribbon and result in malfunction.
7. Use a pencil or some other thin object to take up slack in the ink ribbon as shown in the illustration. Note that the tape does not move at this time.



- If the ink ribbon is slack when you load it into the label printer, it can break or cause some other problem.
- Be sure to turn the ink ribbon take up spool only in the direction indicated by the arrow (a).
- Turn the spool until the other spool (b) starts turning in the direction noted by the arrow. This indicates there is no slack in the ribbon.



8. Load the tape cartridge into the label printer, making sure that the tape and ink ribbon pass between the head and roller.

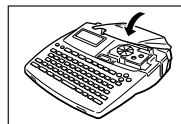


- Be sure to lower the tape cartridge straight down into the label printer, and press down on it until it clicks securely into place.

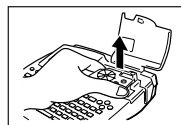
9. Close the cover and operate the tape cut lever to cut off the tape.
10. Turn on label printer power and press **FUNC** and then **PRINT** (FEED) two or three times to make sure that the tape comes out without any problem.
- If the tape does not come out normally, turn off power and start again from step 1 above.

Removing the Tape Cartridge

- Grasp the tape cartridge with your fingers as shown in the illustration, and lift it straight up out of the label printer.

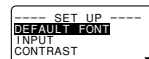


- To make it easier to remove a narrow (6mm, 9mm) tape cartridge, insert a pencil or some other thin, pointed object under the right side of the tape and lift up, as shown in the illustration.



About the SET UP menu

The SET UP menu lets you change various basic settings quickly and easily. To display the SET UP menu, press **FUNC** and then **FORM**.



Use **^** and **v** to move the highlighting to the item you want to select and then press **SET**. Press **ESC** to clear the SET UP menu without selecting anything. The following sections explain how to use most of the SET UP menu items. See page E-12 for details on using DEFAULT FONT, page E-11 for how to use INPUT, and page E-18 for DENSITY.

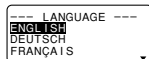
Message Language

You can use the following procedure to select any one of the five different languages (English, German, French, Italian, Spanish) for display of message text.

- All of the display examples in this manual use English as the display language.

To change the message language

1. On the SET UP menu, use \wedge and \vee to highlight "LANGUAGE" and then press **SET**.



2. Use \wedge and \vee to highlight the language you want to use and then press **SET**.

Display Contrast

Use the following procedure to make the characters on the display darker or lighter.

To change the display contrast

1. On the SET UP menu, highlight "CONTRAST" and then press **SET**.
2. Use $<$ and $>$ to make the display contrast lighter and darker.
3. After setting the contrast, press **SET**.

Sound

The label printer is equipped with sound capabilities that signal when power is turned on and when an illegal operation is attempted. Normally, sound are turned on whenever you turn power on, but you can use the following procedure to turn the sound on and off.

To turn sound on and off

1. On the SET UP menu, highlight "SOUND" and then press **SET**.
2. Use \wedge and \vee to highlight the setting you want (ON or OFF) and then press **SET**.

Unit of Measurement

This label printer can use either centimeters (cm) or inches (inch) as the unit of measurement.

To set the unit of measurement

1. On the SET UP menu, highlight "cm/inch" and then press **SET**.
2. Use \wedge and \vee to highlight the setting you want (cm or inch) and then press **SET**.

Demo Print

After setting up the label printer, you may want to produce a demo print to make sure that everything is working properly.

To produce a demo print

1. Press **ON** to turn power on.
2. Press **PRINT** and then **SET**.

The following are examples of the demo print that the above procedure produces. Note that the contents of the demo print depends on the width of the tape loaded in the label printer.

6mm Tape



9mm Tape



12mm Tape



18mm and 24mm Tape



Important!

- You can produce a demo print when the text input display is clear, immediately after turning power on only. Even if you input text and then delete it, pressing **PRINT** will not produce a demo print.
- If you experience problems with printing, check your tape cartridge and power supply, and try again.

Part 3 Inputting Characters and Symbols

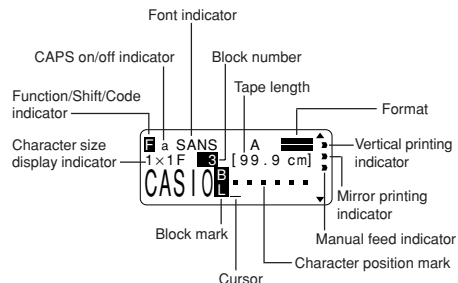
This part of the manual tells you how to input characters. To make things easier to understand, we call everything you input a character, regardless of whether it is actually a letter, number, or symbol. Explanations here all use the default settings that are in effect from the initial power-on screen.

For information on using other fonts, styles, effects and characters sizes, see pages E-12 to E-16.

Important! You can input up to 255 characters per label. Further input becomes impossible after you input the 255th character.

Display Symbols and Indicators

Before getting into actual input, you should first become acquainted with the symbols and indicators used on the label printer display.



CAPS on/off indicator

"A" indicates upper-case input, while "a" indicates lower-case.

Font indicator

This indicator shows the font setting (page E-12) for the character where the cursor is located.

Function indicator

This indicator appears when you press the **FUNC** key. Pressing a key while this indicator is on the display causes the function marked above that key to be executed.

Shift indicator

This indicator appears when you press the **SHIFT** key. While this indicator is on the display, the keyboard is shifted, so the letter keys input the opposite of their current upper-case/lower-case setting. The number keys input the punctuation symbols marked in the upper right corners of the keys. The keyboard automatically unshifts (and the shift indicator disappears) as soon as you input a character.

Code indicator

This indicator appears when you press the **CODE** key. While this indicator is on the display, number keys input the accents marked above them and the **U, O, P, A, S, J, K, L, Z, C** and **N** keys input the special characters marked in their lower right corners. The keyboard automatically returns to normal (and the code indicator disappears) as soon as you input an accent.

Character size display indicator

This indicator shows the size of the character where the cursor is currently located. The letter "F" to the right of the character size indicates a preset format is being used. The letter "S" indicates that the label printer's small typeface is selected.

Block number

This value appears when there are multiple blocks in the text. It shows the sequential number of the block where the cursor is currently located (page E-16).

Format

This indicator shows how many lines of text have been input. See page E-25 for important information about how various format conditions are indicated.

Tape length

This value shows the length that the tape will be printed. See page E-25 for important information about how various tape length conditions are indicated.

Character position marks

These marks show where characters will appear as you input them.

Cursor

The cursor shows the next input position. Any character you input appears at the point where the cursor is located.

Block mark

This mark separates two blocks on the screen.

Return symbol (↵)

The return symbol indicates a newline operation.

Character style indicators

These indicators point to the character effect that is assigned to the character where the cursor is currently located. You can select between normal, bold, outline, shadow, and raised.

Mirror image printing indicator

This indicator appears when the label printer is set up for mirror image printing. Normal (non-mirror image) printing is performed when this indicator is not shown.

Manual feed indicator

This indicator appears when you are using manual feed instead of auto feed. Auto feed is in effect when this indicator is not on the display.

Important! After you finish printing when using manual feed, be sure to always press **FUNC** and then **PRINT** (FEED) to feed the tape before cutting it. If you don't you will cut off part of the printed text.


Basic Alpha-Numeric Input

The following operation shows you the basic procedures for inputting letters and numbers. We will explain the procedure by inputting the following characters using the default initial power-on screen.

ABXYZ Computer Company
1234567890

Note If you hold down any key, it will repeat its operation or input at high speed until you release it.

To input alpha-numeric characters

1. Turn power on.
2. Input the first line of characters.
 - To input the upper-case letters, you can use either **SHIFT** or **CAPS**. With **SHIFT** you must shift the keyboard for each character. With **CAPS** the keyboard keeps its upper-case/lower-case setting until you press **CAPS** again.
 - Press **SPACE** to input spaces.
 - If you input a wrong character, press **BS** to delete it and input again. See page E-11 for other details on editing text.
3. When you reach the end of a line of text, press **↵** to input a newline mark.
 - A newline operation is indicated on the display by the  symbol. This shows where you changed lines.
4. Input the characters in the second line.

5. To print the text that you input, press **PRINT**. For details on printing, see page E-18.

About the CODE key...

The **CODE** key makes it possible to input punctuation needed for a number of different languages. The following shows the key operations you should use for each of the characters formed using the **CODE** key.

■ CAPS on

Key Operation	Input	Key Operation	Input
CODE U	Ü	CODE 1	´
CODE O	Œ	CODE 2	˘
CODE P	À	CODE 3	˙
CODE A	Æ	CODE 4	˘
CODE J	Ö	CODE 5	ˆ
CODE K	Ä	CODE 6	˘
CODE L	Ø	CODE 7	°
CODE Z	Ž	CODE 8	/
CODE C	Ç	CODE 9	˘
CODE N	Ñ	CODE 0	˘

■ CAPS off

Key Operation	Input	Key Operation	Input
CODE U	ü	CODE 1	´
CODE O	œ	CODE 2	˘
CODE P	à	CODE 3	˙
CODE A	æ	CODE 4	˘
CODE S	ß	CODE 5	ˆ
CODE J	ö	CODE 6	˘
CODE K	ä	CODE 7	°
CODE L	ø	CODE 8	/
CODE Z	ž	CODE 9	˘
CODE C	ç	CODE 0	˘
CODE N	ñ		

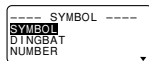
Example: To input á **CODE 1 (´) A**

Inputting Symbols, Dingbats, Special Numbers, Greek Characters, and Russian Characters

The SYMBOL menu provides you with a choice of symbols, dingbats, and special number formats, in addition to Greek and Russian letters.

To use the SYMBOL menu

1. With the cursor at the location where you want to input a symbol, dingbat, number, or character, press the **SYMBOL** key to display the SYMBOL menu.



2. Use **^** and **v** to move the highlighting to the item you want to select and then press **SET**.
- Pressing **SET** causes a menu of symbols, dingbats, number formats, or characters to appear.
- To clear the SYMBOL menu without selecting anything, press **ESC**.
3. Use **^**, **v**, **<** and **>** to move the highlighting to the character you want to select, and then press **SET**.
- Pressing **SET** returns to the input screen, with the symbol, dingbat, or character you selected input at the location where the cursor was located when you displayed the SYMBOL menu.

See page E-25 for a complete list of symbols, dingbats, and characters that are available from each menu.

Inputting Illustrations

Your label printer gives you a choice of 50 illustrations that you can use in your labels.

To input illustrations

1. With the cursor at the location where you want to input an illustration, press the **ILLUST** key to display the ILLUST menu.



2. Use **^**, **v**, **<** and **>** to move the highlighting to the illustration you want to select, and then press **SET**.

- Pressing **SET** returns to the input screen with the illustration you selected input at the location where the cursor was located when you displayed the ILLUST menu.

See page E-25 for a complete list of illustrations that are available.

User Characters

You can create up to four user characters and store them in memory. You can create a character from scratch, or you can use an existing character or symbol as a basis for creating a new character.

User character drawing techniques

The following describes the basic techniques for drawing on the user character screen.

• To move the cursor

Use **^**, **v**, **<** and **>** to move the cursor around the screen. **FUNC <** and **FUNC >** makes the cursor jump to the far left or far right of the screen (when "CON" is not highlighted). **FUNC ^** and **FUNC v** makes the cursor jump to the top or bottom of the screen (when "CON" is not highlighted).

• To draw a dot

Press **1** to draw a black dot at the cursor position or **2** to draw a white dot.

• To draw a series of black dots

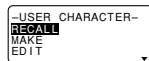
Press **1** to highlight "BLK", and then press **3** to highlight "CON". In this condition, a continuous series of black dots will be drawn when you move the cursor.

• To draw a series of white dots

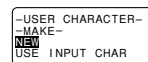
Press **2** to highlight "WHT", and then press **3** to highlight "CON". In this condition, a continuous series of white dots will be drawn when you move the cursor.

To create a user character using an existing character

1. Input the character or symbol you want to use as a basis for your new character and locate the cursor under the character.
2. Press **FUNC** and then **ILLUST** (USER CHR).



3. Use **^** and **v** to move the highlighting to "MAKE" and then press **SET**.



4. Use **^** and **v** to move the highlighting to "USE INPUT CHAR" and then press **SET**.



- The screen contains an image of the character you input in step 1.
 - If you selected "NEW", a screen appears for creating a character from scratch.
5. Use the user character drawing techniques to change the image on the screen.
 6. After you are finished changing the character, press **SET**.



User character area number

7. Use **<** and **>** to select the user character area where you want to store the character and then press **SET**.
- If the user character area you select already has a character in it, the old character will be replaced with the new one.
8. Press **SET** to store the character.
- If there was no input character at the cursor location when you pressed **FUNC** and then **ILLUST** (USER CHR) in step 2, the screen for creating a new character from scratch appears when you press **SET** in step 3.

To create a user character from the user character you created

1. Press **FUNC** and then **ILLUST** (USER CHR).
2. Use **^** and **v** to move the highlighting to "EDIT" and then press **SET**.
3. Use **<** and **>** to select the user character you want to edit, and then press **SET**.
4. Use the user character drawing techniques described to edit the character you want, and then press **SET**.
5. Continue from step 7 under "To create a user character using an existing character".

To recall a user character

1. With the cursor located in the input screen where you want to input the user character, press **FUNC** and then **ILLUST** (USER CHR).

2. Use **^** and **v** to move the highlighting to "RECALL" and then press **SET**.
3. Use **<** and **>** to select the user character you want and then press **SET**.

To delete a user character

1. Press **FUNC** and then **ILLUST** (USER CHR).
2. Use **^** and **v** to move the highlighting to "DELETE" and then press **SET**.
3. Use **<** and **>** to select the user character you want and then press **SET**.
4. Press **SET** to delete the selected character or **ESC** to abort without deleting anything.

Part 4 Deleting and Inserting Characters

This section describes everything you need to know about deleting and editing characters you have already input.

Moving the Cursor

Use the cursor keys to move the cursor around the display and position it for deleting and editing characters.

To move the cursor

- Press **<** to move the cursor to the left, and **>** to move the cursor to the right.
- Press **SHIFT** and then **<** to make the cursor jump to the next block mark (■) to the left. (See page E-16 for details about blocks).
- Press **SHIFT** and then **>** to make the cursor jump to the next block mark (■) to the right.
- Press **FUNC** and then **<** to make the cursor jump to the beginning (far left) of the current line.
- Press **FUNC** and then **>** to make the cursor jump to the end (far right) of the current line.
- Press **FUNC** and then **^** to make the cursor jump to the first character of the text.
- Press **FUNC** and then **v** to make the cursor jump to the end of the text.
- Holding down the **<** or **>** cursor key moves the cursor at high speed.

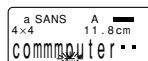
Deleting Individual Characters

You can delete individual characters with either the **BS** key or the **DEL** key. The only difference between the operation of these two keys is the location of the cursor.

To delete characters using the BS key

Example: To change the word "commmputer" to "computer".

1. Use **<** and **>** to move the cursor under "p".



2. Press **BS** twice to delete the two m's to the left of the cursor, shifting "puter" to the left as you do.

To delete characters using the DEL key

Example: To change the word "commmputer" to "computer".

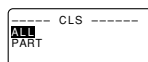
1. Use **<** and **>** to move the cursor under the first (far left) "m".
2. Press **DEL** twice to delete the two m's at the cursor's position, shifting "mputer" to the left as you do.

Clearing the Display

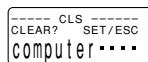
The label printer gives you a choice of clearing the entire display or only a specific block of text.

To clear all text

1. Press **FUNC** and then **BS** (CLS).



2. Use **^** and **v** to highlight "ALL" (if it isn't already highlighted).
3. Press **SET**.



4. Press **SET** to clear all of the text on the display or **ESC** to abort without clearing anything.

To clear a portion of text

1. Press **FUNC** and then **BS** (CLS).
2. Use **^** and **v** to highlight "PART" (if it isn't already highlighted).

3. Press **SET**.



4. Use **<** and **>** to move the cursor to start point of the text you want to delete and press **SET**.
5. Use **<** and **>** to move the cursor to end point of the text you want to delete.
 - The text between the cursor and the start point is highlighted as you move the cursor.
6. Press **SET** to clear the highlighted text or **ESC** to abort without clearing anything.

Text Editing

You can set up the label printer so it either overwrites existing characters with new input, or inserts new input between existing characters. Note the following example.

Example

Existing text: ABCDEFGHI
 Cursor location: E
 New input: XXX

Overwrite

Result: ABCDXXXHI

Insert

Result: ABCDXXXIEFGHI

To switch between overwrite and insert

1. Press **FUNC** and then **FORM** (SET UP) to display the SET UP menu.
2. Use **^** and **v** to highlight "INPUT" and then press **SET**.
3. Use **^** and **v** to highlight the setting you want ("INSERT" or "OVERWRITE") and then press **SET**.
 - The CAPS indicator on the display is highlighted when overwrite is turned on. The CAPS indicator appears normally (unhighlighted) when insert is turned on.

Part 5 Character Attributes and Text Effects

The operations in this part of the manual explain how to change fonts and character styles. These characteristics are called "character attributes". It also tells you how to assign such text effects as underlining, shading, and box printing to text.

Important!

- Character attributes you specify affect printed text only. The characters on the display do not change.
- Remember that character attributes are assigned to specific characters. Whenever you replace a character with another one, the new character also picks up the attributes of the original character.
- Text effects are applied to both displayed text and printed text.

Fonts

This label printer gives you a choice of 10 different fonts. See page E-25 for examples of each type of font.

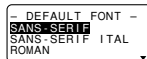
The following sections describe how to change the default font setting (the font that is automatically used whenever you input text), how to change the font for displayed text, and how you can find out what the font setting is for text on the display.

Important!

- Note that you cannot make font changes for illustrations.
- Note that non-English characters (Ç, ß, Å, etc.) can be used with the sans-serif, sans-serif italic, roman, roman italic and bold script fonts only.

To change the default font setting

1. Press **FUNC** and then **FORM** (SET UP) to display the SET UP menu.
2. Highlight "DEFAULT FONT" and then press **SET**.



3. Use **^** and **v** to highlight the font you want to set as the default and then press **SET**.
- Be sure to perform the following procedures after changing the default font setting. Note that changes in the default font will not be recognized until the following procedure is performed.

4. Press **FUNC** and then **BS**.
5. Select **ALL** to clear all text from the display.
6. Turn off power, and then restart the Label Printer.
 - Note that the default setting remains in effect until you change it, even when power is turned off.

To change the font for displayed text

1. While there is text on the display, press **FONT**.



2. Use **^** and **v** to highlight the font you want to change to and then press **SET**.



- What you should do next depends on the range you want to use.

To change the font for all the text

1. After performing the two steps under "To change the font for displayed text", use **^** and **v** to highlight "ALL" and then press **SET**.
2. Press **SET** to change the font for all the text on the display.
 - At this point, the label printer returns to the text input screen.
 - Pressing **ESC** returns to the RANGE menu without changing anything.

To change the font for blocks of text

1. After performing the two steps under "To change the font for displayed text", use **^** and **v** to highlight "BLOCK" and then press **SET**.



- See page E-16 for details about how to use blocks.

2. Move the cursor to the start block from which you want to change the font and then press **SET** to register your selection.



3. Move the cursor to the end block up to which you want to change the font and then press **SET** to register your selection and change the font.
 - At this point, the label printer returns to the text input screen.

To change the font for lines of text

1. After performing the two steps under "To change the font for displayed text", use **^** and **v** to highlight "LINE" and then press **SET**.
2. Move the cursor to the start line from which you want to change the font and then press **SET** to register your selection.
3. Move the cursor to the end line up to which you want to change the font and then press **SET** to register your selection and change the font.
 - At this point, the label printer returns to the text input screen.

To change the font for specific characters

1. After performing the two steps under "To change the font for displayed text", use **^** and **v** to highlight "CHARACTER" and then press **SET**.
2. Move the cursor to the start character from which you want to change the font and then press **SET** to register your selection.
3. Move the cursor to the end character up to which you want to change the font and then press **SET** to register your selection and change the font.
 - At this point, the label printer returns to the text input screen.

To find out current font settings

Use the **<** and **>** cursor keys to move the cursor around the display. The font indicator shows the current font setting for the character where the cursor is located.

Character Styles

There are five character styles: normal, bold, outline, shadow, and raised.

The following sections describe how to change the character style for displayed text, and how you can find out what the character style setting is for text on the display.

To change the character styles

1. While there is text on the display, press **STYLE**.



2. Use \wedge and \vee to highlight the style you want to change to and then press **SET**.



- What you should do next depends on the range you want to use.
- The range setting procedures are the same as those for font range settings.

ALL: See "To change the font for all the text".

BLOCK: See "To change the font for blocks of text".

LINE: See "To change the font for lines of text".

CHARACTER: See "To change the font for specific characters".

To find out current character style settings

Use the \leftarrow and \rightarrow cursor keys to move the cursor around the display. The character style indicator shows the current character style setting for the character where the cursor is located.

Indicator	Meaning	Indicator	Meaning
A	Normal	A	Shadow
A	Bold	A	Raised
A	Outline		

Text Effects

You get a choice of three text effects: shading, underline, and box. Effects can be used in combination with each other.

Important! The text effects are applied to text on the display, in addition to the printed text.

About text effect ranges

As with fonts and character styles, you can specify a range for your text effect specifications. The following shows an example for each of the ranges available for text effects.

BLOCK

This range specifies application of a text effect for all the text in a specific block.

A	B	C	D	
1	2	3	4	5
a	b	c		

- See page E-16 for details about how to use blocks.

LINE

This range specifies application of a text effect for all the text in a specific line.

A	B	C	D	
1	2	3	4	5
a	b	c		

CHARACTER

This range specifies application of a text effect for a specific character.

A	B	C	D	
1	2	3	4	5
a	b	c		

TEXT

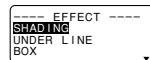
This range is used to specify text across various lines, etc.

- A TEXT range specification must begin and end with in the same block.

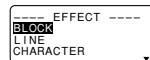
A	B	C	D	
1	2	3	4	5
a	b	c		

To assign text effects

1. While there is text on the display, press **EFFECT**.



2. Use \wedge and \vee to highlight the effect you want and then press **SET**.



- What you should do next depends on the range you want to use.

To change the text effects for blocks of text

1. After performing the two steps under "To assign text effects", use \wedge and \vee to highlight "BLOCK" and then press **SET**.



- See page E-16 for details about how to use blocks.

2. Move the cursor to the start block from which you want to change the text effect and then press **SET** to register your selection.



3. Move the cursor to the end block up to which you want to change the text effect and then press **SET** to register your selection and change the effect.

- At this point, the label printer returns to the text input screen.

To change the text effect for lines of text

1. After performing the two steps under "To assign text effects", use \wedge and \vee to highlight "LINE" and then press **SET**.

2. Move the cursor to the start line from which you want to change the text effect and then press **SET** to register your selection.

3. Move the cursor to the end line up to which you want to change the text effect and then press **SET** to register your selection and change the text effect.

- At this point, the label printer returns to the text input screen.

To change the text effect for specific characters

1. After performing the two steps under "To assign text effects", use \wedge and \vee to highlight "CHARACTER" and then press **SET**.

2. Move the cursor to the start character from which you want to change the text effect and then press **SET** to register your selection.

3. Move the cursor to the end character up to which you want to change the text effect and then press **SET** to register your selection and change the text effect.

- At this point, the label printer returns to the text input screen.

To change the text effect for a range of text

- After performing the two steps under "To assign text effects", use \wedge and \vee to highlight "TEXT" and then press **SET**.
- Move the cursor to the start character from which you want to change the text effect and then press **SET** to register your selection.
- Move the cursor to the end character up to which you want to change the text effect and then press **SET** to register your selection and change the text effect.
- At this point, the label printer returns to the text input screen.

Part 6 Character Sizes

Your label printer comes with two basic typefaces: standard and small. You can adjust the size of characters either by direct specifying for each character or specifying character size for entire lines of text using preset formats. The operations in this part of the manual explain how to change character sizes using each of these techniques.

Direct Specification of Character Sizes

You can specify the size of characters using the numeric factors shown in the tables below. A character size change is indicated on the display by a character size indicator.

Standard Typeface

- The normal size for the standard typeface is 1×1 (24 \times 24 dots; 3mm \times 3mm).
- Character size can be changed by specifying a vertical factor (1, 2, 3, 4, 5) and a horizontal factor (1, 2, 3, 4, 5, 6, 7).
- The table below shows the character size indicator values that appear for each character size.

Standard Typeface

Vertical	Horizontal								
	Factor	1	2	3	4	5	6	7	8
	1	1 × 1	1 × 2	1 × 3	1 × 4	1 × 5	1 × 6	1 × 7	1 × 8
	2	2 × 1	2 × 2	2 × 3	2 × 4	2 × 5	2 × 6	2 × 7	2 × 8
	3	3 × 1	3 × 2	3 × 3	3 × 4	3 × 5	3 × 6	3 × 7	3 × 8
	4	4 × 1	4 × 2	4 × 3	4 × 4	4 × 5	4 × 6	4 × 7	4 × 8
	5	5 × 1	5 × 2	5 × 3	5 × 4	5 × 5	5 × 6	5 × 7	5 × 8

Important! The vertical character sizes you can use are automatically limited by the width of the tape loaded in the label printer.

Tape Width	Vertical Character Sizes
6mm	1
9mm	1, 2
12mm	1, 2, 3
18mm	1, 2, 3, 4, 5
24mm	1, 2, 3, 4, 5

- The range (From - To settings) for a character size specification cannot extend from one block to another.

Small Typeface

- The normal size for the small typeface is 1×1 (16 \times 16 dots; 2mm \times 2mm). 8 \times 16 dots matrix is used to form alpha-numeric characters and symbols.
- Character size can be changed by specifying a vertical factor (1, 2, 3, 4) and a horizontal factor (1, 2, 3, 4, 5, 6, 7, 8).
- The table below shows the character size indicator values that appear for each character size.
- The character size indicator 1×1 is shown on the display when the small typeface is being used.

Small Typeface

Vertical	Horizontal								
	Factor	1	2	3	4	5	6	7	8
	1	1 × 1	1 × 2	1 × 3	1 × 4	1 × 5	1 × 6	1 × 7	1 × 8
	2	2 × 1	2 × 2	2 × 3	2 × 4	2 × 5	2 × 6	2 × 7	2 × 8
	3	3 × 1	3 × 2	3 × 3	3 × 4	3 × 5	3 × 6	3 × 7	3 × 8
	4	4 × 1	4 × 2	4 × 3	4 × 4	4 × 5	4 × 6	4 × 7	4 × 8

Tape Width	Vertical Character Sizes
6mm	1
9mm	1, 2
12mm	1, 2, 3
18mm	1, 2, 3, 4
24mm	1, 2, 3, 4

- The range (From - To settings) for a character size specification cannot extend from one block to another.

Notes

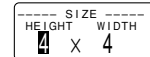
- Proportional spacing cannot be used with the small typeface.
- Available font is only one.
- Style and text effect settings may not print correctly when used with the small typeface.
- Dingbats and user characters may not print correctly when used with small typeface.

To change character size using direct specification

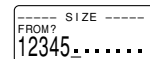
- While there is text on the display, press **SIZE**.



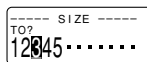
- Use \wedge and \vee to highlight "SIZE" and then press **SET**.



- Specify the character size you want.
 - Use \wedge and \vee to move the highlighting between the two dimensions.
 - To change a dimension, press \vee to increase it or \wedge to decrease it. Or you can input a value directly on the label printer's keyboard.
 - Remember that the dimensions you can specify depend on the width of the tape loaded in the label printer (see table, left).
- After you finish setting the character size you want, press **SET** to register it.

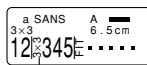


5. Move the cursor to the start character from which you want to change the character size and then press **SET** to register your selection.



6. Move the cursor to the end character up to which you want to change the character size and then press **SET** to register your selection and change the character size.
- At this point, the label printer returns to the text input screen.

The following shows a character size mark.



Character size mark

Specifying Character Sizes for Lines of Text Using Preset Formats

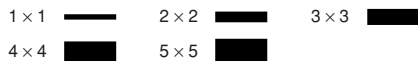
With this method, you input the text you want and then use preset formats to specify the character size for each line of text. Note that character size marks do not appear inside of text when you specify character sizes using this method. Instead, the character size display mark shows the size of the characters where the cursor is currently located.

About the format menu

The format that appears in the following procedure uses symbols to indicate character sizes in each line of text. The formats that appear depend on the width of the tape loaded in the label printer and the number of lines in the block of text where the cursor is located when you press the **SIZE** key. The following shows all of the formats available for each tape width and the number of lines of text.

- Note that with the preset formats, all character sizes have the same vertical and horizontal measurements.

24mm and 18mm tape, 1 line of text



24mm and 18mm tape, 2 lines of text



24mm and 18mm tape, 3 lines of text



12mm tape, 1 line of text



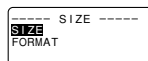
9mm tape, 1 line of text



Important! You can use preset formats to specify character sizes for lines of text only when there is no character size specification already made inside of the text. If you press the **SIZE** key while the cursor is located inside of a block that already contains a character size indicator, the **FORMAT** item will be dimmed on the **SIZE** menu, which means it cannot be selected.

To specify character sizes for lines of text using preset formats

1. While the cursor is located inside of the block of text where you want to use the preset formats, press **SIZE**.



- See page E-16 for details about blocks.

2. Use **^** and **v** to highlight "FORMAT" and then press **SET**.



- The **FORMAT** menu appears with all of the preset formats that are available in accordance with the number of text lines there are in the block where you located the cursor, and with the width of the tape loaded in the label printer.

3. Use **^**, **v**, **<** and **>** to move the highlighting to the format that you want to use and then press **SET** to select it.

- At this point, the label printer returns to the text input screen.

To find out preset format character sizes

Use the **<** and **>** cursor keys to move the cursor around the display. The character size indicator shows the current size setting for the character where the cursor is located.

About Auto Sizing

If you do not specify a character size, the label printer automatically selects the optimum size in accordance with the width of the tape you are using. If you are using frames (page E-19), characters are automatically balanced with the type of frame being used.

The following are examples of how auto sizing works.

Tape width	1 x 1 (Manual Setting)
	Auto Fit
6mm	
9mm	
12mm	
18mm	
24mm	

Important! Remember that changing the tape cartridge may make it impossible to print text if there are too many lines. Note the following relationships between tape width and the number of text lines.

Tape Width	Plain Text	Print Area Frame	Character Frame
24mm	8 lines max.	6 lines max.	1 line
18mm	8 lines max.	6 lines max.	1 line
12mm	5 lines max.	3 lines max.	1 line
9mm	4 lines max.	3 lines max.	1 line
6mm	2 lines max.	1 line max.	—

(See page E-19)

Part 7 FORM Menu Functions

This part of the manual describes how to use the FORM menu to layout your text exactly the way you want it on the label. With the FORM menu, you can control character pitch, text blocks, text alignment, and a wide range of other features.

Fundamentals of Label Layout

Before we actually begin our discussion about how to layout a tape, we should first define a few terms. Note the following.

Blocks

A block is text that is enclosed between two block marks (⎓). Note that the first (far left) block does not require a block mark at the beginning, and the last (far right) block does not require a block mark at the end. If there are no block marks, all of the text is treated as a single block. You can individually specify the length of each block, as well as the pitch and the number of lines of inside each block.

Print Area

The print area is the actual area of a label that contains printed text. It starts with the left side of the first character printed, and ends with right side of the last character printed.

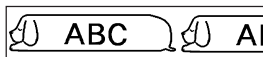
Side Spaces

The side spaces are blank areas that the Label Printer automatically adds on either end of the print area. Note that side spaces are only added when you are using auto feed, and they are not added when using manual feed.

Auto Feed (with side spaces)



Manual Feed (no side spaces)



Label Length

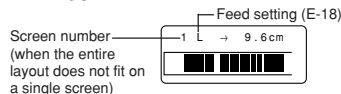
The label length is the print area, plus the side spaces. Settings you make for side spaces, block spacing, and mirror printing affect the entire label length.

Using the Layout Display

You can check the layout of your label at any time using the layout display. The layout display shows all of the graphics and text elements that make up your label to give you a general idea of how the label is laid out.

To show the layout display

- After laying out the label you plan to print, press **LAYOUT**.



- If the label layout is too big to fit on a single display, use < and > to scroll it.
 - Pressing < returns to the top of the layout.
- Press **ESC** to quit the layout display.
 - You can view the actual appearance of the label using the image display, which is described on page E-19.

Creating and Deleting Blocks

The following procedures describe how to create and delete blocks. Later you will learn how can change certain settings on a block-by-block basis.

To create a block

Example: To input the text "ABC Computer Company" and create two blocks: "ABC" and "Computer Company".

- Input the text.
- Move the cursor to the space between "ABC" and "Computer Company".
- Press **BLOCK**.



- If you wanted to break the text up into three blocks, you would input another block mark.

To delete a block mark

To delete a block mark, use the procedures for **BS** and **DEL** as described under "Deleting Individual Characters" (page E-11).

Block Operations

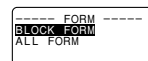
The procedures in this section can be used to control the following parameters for each block.

- Direction (vertical, horizontal)
- Alignment (left, center, right, uniform spacing)
- Justification (justify, ragged)
- Character pitch (none, narrow, medium, wide)
- Block length (auto, fixed)

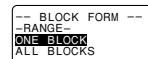
Use the BLOCK FORM menu to perform block operations.

To display the BLOCK FORM menu

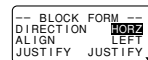
- While there is text on the display, press **FORM**.



- Use ^ and v to move the highlighting to "BLOCK FORM" and then press **SET**.



- Specify whether you want your specifications to apply to one block or all blocks and then press **SET**.
 - If you specify one block, the specifications you make will be applied to the block where the cursor was located when you pressed **FORM**.



- Use ^ and v to move the highlighting between menu items.

- The BLOCK FORM menu has two pages. Press **SET** while the first page is displayed to change to the second page. Pressing **SET** while the second page is displayed registers any settings with the menu and returns to the text input screen.
- Use < and > to change between settings of the currently selected (highlighted) item.
- The following explanations describe each of the BLOCK FORM menu items in detail.

DIRECTION

HORIZONTAL

123

VERTICAL

1
2
3

ALIGNMENT

LEFT

Anne Green
ABC Co., Ltd.
B Team

CENTER

Anne Green
ABC Co., Ltd.
B Team

RIGHT

Anne Green
ABC Co., Ltd.
B Team

EQUAL (Uniform Spacing)

Anne Green
ABC Co., Ltd.
B Team

JUSTIFICATION

This item lets you specify justified (even) or ragged (uneven). The following shows some examples of how justification affects text.

- Justification is applied only when EQUAL is selected for ALIGNMENT.

Examples

- Justified

Anne Green
ABC Co., Ltd.
B Team

- Ragged

Anne Green
ABC Co., Ltd.
B Team

CHARACTER PITCH

This is the relative spacing between characters. You can specify character pitch as NONE, NARROW, MEDIUM or WIDE. The following shows examples of each character pitch setting.

NONE

ABC Company

NARROW

ABC Company

MEDIUM

ABC Company

WIDE

ABC Company

BLOCK LENGTH

Select "FIX" if you want to specify a fixed block length in the range of 0.0 cm to 99.9 cm. Specify "AUTO" for this option if you want the label printer to automatically adjust the length of the block.

All Text Operations

The procedures in this section control the following parameters for all of the text on the display.

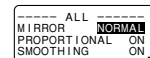
- Mirror printing (mirror, normal)
- Proportional character spacing (on, off)
- Smoothing (on, off)
- Block space (none, narrow, wide)
- Feed (long, short, manual)

- Tape length (auto, fixed)
- Block alignment (left, center, right, uniform spacing)

Use the BLOCK FORM menu to perform block operations.

To display the ALL FORM menu

1. While there is text on the display, press **FORM**.
2. Use ^ and v to move the highlighting to "ALL FORM" and then press **SET**.



- Use ^ and v to move the highlighting between menu items.
- The ALL FORM menu has three pages. Press **SET** while the first page is displayed to change to the second page. Press **SET** while the second page is displayed to change to the third page. Pressing **SET** while the third page is displayed registers any settings with the menu and returns to the text input screen.
- Use < and > to change between settings of the currently selected (highlighted) item.
- The following explanations describe each of the ALL FORM menu items in detail.

MIRROR/NORMAL

MIRROR

ABC Company

NORMAL

ABC Company

PROPORTIONAL

ON

ABC Company

OFF

A B C Company

SMOOTHING

ON

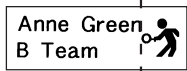


OFF

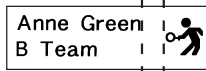


BLOCK SPACE

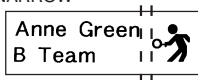
NONE



WIDE



NARROW



FEED

You can also one of two different feed settings that provides either long or short side spaces ("Fundamentals of Label Layout" page E-16). You can also specify manual feed.

LONG

This setting causes the tape to feed 16mm at the beginning and end of each printing.

SHORT

This setting causes the tape to feed 3mm at the beginning and end of each printing.

MANUAL

This setting provides side spaces of only 1mm of the printed text. If you perform two consecutive print operations (without manually feeding between prints), the last character of the first print operation is followed by the first character of the second print operation, with no space provided between them. It is a good way to save tape when you print a series of tapes.

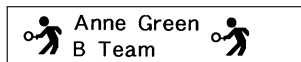
Important! After you finish printing when using manual feed, be sure to always press **FUNC** and then **FEED** to feed the tape before cutting it. If you don't you will cut off part of the printed text.

TAPE LENGTH

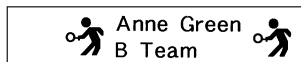
Select "FIX" if you want so specify a fixed tape length in the range of 0.0 cm to 99.9 cm. Specify "AUTO" for this option if you want the label printer to automatically adjust the length of the tape.

BLOCK ALIGN

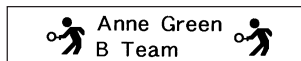
LEFT



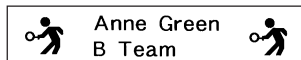
RIGHT



CENTER



EQUAL



Part 8 Printing

This part of the manual includes all the information you need to print tapes.

Note The following information covers basic printing procedures only. Other printing related information can be found in the sections of this manual describing presets (page E-19), stamp printing (page E-22), frames (page E-19), and memory operations (page E-23).

Printing Precautions

- Never turn power off while printing is being performed.
- Make sure that the tape outlet is not blocked before you start printing.
- Never operate the tape cutter while printer is being performed (indicated by the message "NOW PRINTING" on the display).
- During printing at very high density, printing of very long text, or repeat printing of the same text a number of times, the label printer may stop printing for about five seconds. This is not a malfunction, and normal printing should resume shortly.

Printing a Tape

Printing a tape is as easy as pressing the **PRINT** key.

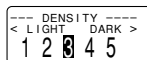
To print a tape

1. Press the **PRINT** key to print a tape of the text you have input and laid out.
 - To stop a print operation that is in progress, press **ESC**.
 - You can add extra margin to the beginning of the tape by pressing **FUNC** and then **FEED** before starting the print operation.
2. After the print operation is complete, press the tape cutter lever to cut the tape.
 - Make sure you press the tape cutter lever as far as it will go, but do not apply excessive force.
3. Use scissors to trim the tape to the size you want, if necessary.
 - After you print a tape, you can peel off its paper backing and stick the tape onto the object you want. Note that the tape will not stick on coarse, wet, oily, or soiled surfaces. Also, you should not try to use the tape where it is exposed to direct sunlight or rain. Do not stick the tape onto human skin.
 - An easy way to remove the backing from a tape and expose the adhesive surface is to bend the tape near one of its ends. This should cause the tape and its backing to separate, allowing you to pull them apart.

To adjust the print density

1. Turn power on.
2. Press **FUNC** and then **FORM** (SET UP) to display the SET UP menu.

- Use **^** and **v** to highlight "DENSITY", and then press **SET**.



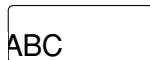
- Use **<** and **>** to highlight the density you want to use and then press **SET** to apply the setting and return to the text input screen.
- The higher the number you select, the darker the characters that are printed.

Using the Image Display

The image display lets you view a realistic image of exactly what your tape will look like before you print it.

To show the image display

- After laying out the label you plan to print, press **IMAGE**.



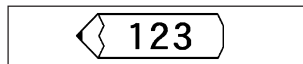
- The image on the display scrolls from right to left.
- To stop the image from scrolling and freeze the current contents on the display, press **SET**.
- Press **SET** again to resume scrolling.
- Press **ESC** to quit the image display.
- Labels that contain very thin lines or a large number of characters may not appear normally on the image display.

The appearance of the message "REPLACE BATTERIES!" or "LOW BATTERY!" indicates that battery power is low. Whenever either of these messages appears, replace all the batteries with a full set of new ones as soon as possible. Continued use of the label printer while battery power is low can result in sudden power failure during operation or printing.

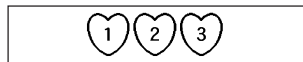
Part 9 Frames

The frame feature makes it easy to add attractive ornamental frames to your text. You get a choice of two types of frames.

Frame around the printing area

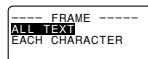


Frames around each character



To specify a frame around the printing area

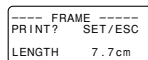
- Input the text you want to frame.
- Press **FRAME**.



- Use **^** and **v** to move the highlighting to "ALL TEXT" and press **SET**.



- Use **^**, **v**, **<** and **>** to move the highlighting to the frame you want to use and press **SET**.



- See page E-25 for a complete list of the ALL TEXT frames that are available.

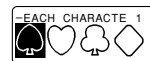
- Press **SET** to print your text with the selected frame or **ESC** to abort the print operation without printing anything.

To specify frames around each character

Note

Five kinds of frames are available when 6mm tape is loaded in the label printer.

- Input the text you want to frame.
- Press **FRAME**.
- Use **^** and **v** to move the highlighting to "EACH CHARACTER" and press **SET**.



- Use **^**, **v**, **<** and **>** to move the highlighting to the frame you want to use and press **SET**.
- See page E-25 for a complete list of the EACH CHARACTER frames that are available.
- Press **SET** to print your text with the selected frame or **ESC** to abort the print operation without printing anything.

Important! Printing cannot be performed on 6mm tape while EACH CHARACTER frames are being used.

Part 10 PRESETS Menu Functions

This part of the manual describes how to use the PRESETS menu to access a variety of different built-in functions that make label creation quicker and easier.

To display the PRESETS menu

- Press **PRESETS**.
 - Note that PRESETS menu functions are normally used when there is no text on the input screen. If there is text on the screen when you press **PRESETS**, the message "CLEARS INPUT TEXT!" appears on the screen. You can proceed with the operation (and clear the text) by pressing **SET**, or press **ESC** to abort without clearing anything.
- Use **^** and **v** to move the highlighting to the preset you want to select and then press **SET**.

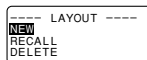
LAYOUT

The preset layouts provide a total of 74 label templates that you can use to create attractive labels quickly and easily. Each template is made up of "elements" whose contents you can use as they are or change to something else. You can even store completed labels in memory for instant recall when you need them.

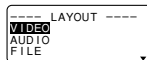
- Note that 6mm wide tape cannot be used for printing a preset layout.

To use a preset layout to create a label and print it

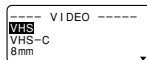
1. While the PRESETS menu is on the display, use \wedge and \vee to move the highlighting to "LAYOUT" and then press **SET**.



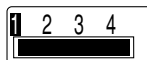
2. Use \wedge and \vee to move the highlighting to "NEW" and then press **SET**.



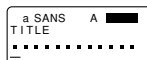
3. Use \wedge and \vee to move the highlighting to "VIDEO" and then press **SET**.



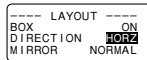
- Note that you can also recall an existing label.
4. Use \wedge and \vee to move the highlighting to "VHS" and then press **SET**.



5. Use \lt and \gt to move the highlighting to the number of the layout you want to use (1, 2, 3, 4) and then press **SET**.



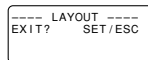
- Note that some blocks already contain characters. You can use the characters as they are or replace them with new ones.
6. Input the text you want to include in each element, and then press **SET** to advance to the next element.
 - To use a character already in an element without changing it, press **SET** to advance to the next element. To leave an element blank, press **SET** without inputting anything.
 - When you press **SET** after inputting text for the last element, the menu shown here appears.



7. Specify box on/off, the print direction (page E-17), and either mirror or normal printing (page E-17).
 - Use \wedge and \vee to move the highlighting between items, and \lt and \gt to change each setting.
 - Turning on "BOX" causes the layout to be enclosed in a box when it is printed.
8. After making the settings you want, press **SET**.



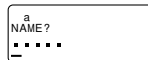
9. Use \wedge and \vee to move the highlighting to "PRINT" and then press **SET** to execute it.
- The message "CUT THEN [SET]!" appears on the screen. Operate the tape cut lever to cut off any excess tape.
10. Press **SET**.
- After printing is complete, operate the tape cut lever to cut the tape.
11. Use \wedge and \vee to move the highlighting to "EXIT" and then press **SET**.



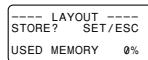
12. Press **SET** to end the operation.

To store a label created using a preset layout

1. Perform steps 1 through 8 under "To use a preset layout to create a label and print it" to create the label.
2. Use \wedge and \vee to move the highlighting to "STORE" and then press **SET**.



3. Input up to five characters for the name of the label, and then press **SET**.
4. Press **SET** to store the label or **ESC** to abort the operation without storing anything.
5. Use \wedge and \vee to move the highlighting to "EXIT" and then press **SET**.
6. Press **SET** to end the operation.



To recall a preset layout label from memory

1. While the LAYOUT menu is on the display, use \wedge and \vee to move the highlighting to "RECALL" and then press **SET**.
2. Use \wedge and \vee to display the name of the label you want, and then press **SET** to recall it.
3. Now you can make any changes in the label contents and then print it, or simply print the label without making any changes.
- To make changes in the label contents, use the procedures starting from step 8 under "To use a preset layout to create a label and print it".
- To print the label without making any changes, perform the procedure starting from step 6 under "To use a preset layout to create a label and print it".

To delete a preset layout label from memory

1. While the LAYOUT menu is on the display, use \wedge and \vee to move the highlighting to "DELETE" and then press **SET**.



2. Use \wedge and \vee to display the name of the label you want, and then press **SET** to delete it.
3. Then **SET** to delete the label.

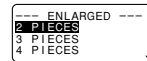
ENLARGE

This item lets you print up to 16 characters on multiple tapes. You can then assemble the tapes into an enlarged label. Note that this item is available only when 12, 18, or 24mm tape is loaded in the label printer. See page E-26 for important information about character sizes and tape width when using the various setting of this item.

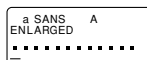
- 12mm tape cannot be used for printing a tape enlarged using the "4 PIECES LARGE" setting.

To print a large-size label

1. While the PRESETS menu is on the display, use \wedge and \vee to move the highlighting to "ENLARGED" and then press **SET**.



- Use **Λ** and **∇** to move the highlighting to the enlarge-ment size you want to use and then press **SET**.



- Input up to 16 characters of text, and then press **SET**.
 - Specify the print direction (page E-17) and either mirror or normal printing (page E-17).
 - Use **Λ** and **∇** to move the highlighting between items, and **<** and **>** to change each setting.
5. After making the settings you want, press **SET**.



- Use **Λ** and **∇** to move the highlighting to "PRINT" and then press **SET** to execute it.
- Use **Λ** and **∇** to move the highlighting to "EXIT" and then press **SET**.
- Press **SET** to end the operation.

BAR CODE

With this item, you can print any one of seven different types of bar codes: EAN-13, EAN-8, UPC-A, UPC-E, ITF, CODE39, CODABAR.

Important! The procedure you use to print a bar code depends on the type of bar code you select.

Bar Code Tape

Only the following types of tape should be used for printing bar codes.

- Black on white tape (WE)
- Blue on white tape (WEB)
- Black on yellow tape (YW)

Important!

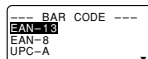
- You cannot use 6mm tape to print bar codes.
- You can input up to 60 characters as comment text when using 18mm/24mm tape. You cannot input comment text with 9mm and 12mm tape (the comment input screen will not appear). If you do not want to input comment text, press **SET** without inputting anything.
- Always test bar codes produced using this label printer before actually using them. If bar codes cannot be read properly, try adjusting the print density (page E-18) or using a larger character size.

EAN-13, EAN-8, UPC-A, UPC-E

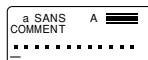
The following applies to EAN-13, EAN-8, UPC-A, and UPC-E bar codes.

To print a bar code

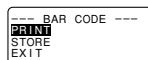
- While the PRESETS menu is on the display, use **Λ** and **∇** to move the highlighting to "BAR CODE" and then press **SET**.
- Use **Λ** and **∇** to move the highlighting to "NEW" and then press **SET**.



- Use **Λ** and **∇** to move the highlighting to the type of bar code you want to print and then press **SET**.



- This display appears only if you are using 18mm/24mm tape. If you are using different tape, skip to step 5.
- Input up to 60 characters of comment text if you want, and then press **SET**.
 - Input the bar code's data and then press **SET**.
 - Use **Λ** and **∇** to move the highlighting to the size you want to use and then press **SET**.



- Use **Λ** and **∇** to move the highlighting to "PRINT" and then press **SET** to execute it.
- Use **Λ** and **∇** to move the highlighting to "EXIT" and then press **SET**.
- Press **SET** to end the operation.

ITF, CODE39, CODABAR

The following applies to ITF, CODE39 and CODABAR bar codes.

To print a bar code

- While the PRESETS menu is on the display, use **Λ** and **∇** to move the highlighting to "BAR CODE" and then press **SET**.

- Use **Λ** and **∇** to move the highlighting to "NEW" and then press **SET**.
- Use **Λ** and **∇** to move the highlighting to the type of bar code you want to print and then press **SET**.



- Use **Λ** and **∇** to select "YES" (use check digit) or "NO" (do not use check digit) and then press **SET**.
- This display appears only if you are using 18mm/24mm tape. If you are using different tape, skip to step 6.
- Input up to 60 characters of comment text if you want, and then press **SET**.
- Input the bar code's data and then press **SET**.
- Perform steps 6 through 9 under "To print a bar code" of "EAN-13, EAN-8, UPC-A, UPC-E".

General Bar code Operations

The following procedures apply to all bar code types.

To store a bar code

- Perform the required steps to create the bar code so the following is on the screen.
- Use **Λ** and **∇** to move the highlighting to "STORE" and then press **SET**.
- Input up to five characters for the name of the bar code, and then press **SET**.
- Press **SET** to store the bar code or **ESC** to abort the operation without storing anything.
- Use **Λ** and **∇** to move the highlighting to "EXIT" and then press **SET**.
- Press **SET** to end the operation.

To recall a bar code from memory

- While the BAR CODE menu is on the display, use **Λ** and **∇** to move the highlighting to "RECALL" and then press **SET**.
- Use **Λ** and **∇** to display the name of the bar code you want, and then press **SET** to recall it.
- Now you can make changes in the bar code and print it or store it as a new bar code.

To delete a bar code from memory









- While the BAR CODE menu is on the display, use **Λ** and **∇** to move the highlighting to "DELETE" and then press **SET**.

2. Use **^** and **v** to display the name of the bar code you want, and then press **SET** to delete it.
3. Press **SET** to delete the bar code.

NUMBERING

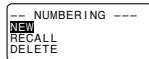
This label printer gives you a choice of four different numbering formats that you can use to print sequentially numbered labels from 0 to 999.

Formats

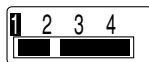
1.   : Number followed by up to 220 characters of text.
2.   : Number preceded by up to 220 characters of text.
3.    : Number with up to 110 characters of text on either side.
4.  : Number only.

To print sequentially numbered labels

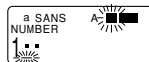
1. While the PRESETS menu is on the display, use **^** and **v** to move the highlighting to "NUMBERING" and then press **SET**.



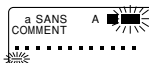
2. Use **^** and **v** to move the highlighting to "NEW" and press **SET**.



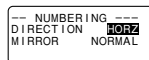
3. Use **<** and **>** to move the highlighting to the number of the format you want and then press **SET**.



4. Input the starting number of the numbering sequence and then press **SET**.



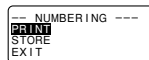
5. Input any comment text you want and then press **SET**.



- You can also specify the font, character style, and text effects if you want.
6. Specify the print direction (page E-17) and either mirror or normal printing (page E-17).
 - Use **^** and **v** to move the highlighting between items, and **<** and **>** to change each setting.
 7. After making the settings you want, press **SET**.
 8. Use **^** and **v** to move the highlighting to "PRINT" and then press **SET** to execute it.
 - The label printer prints a tape with the number and comment text, and then displays the screen shown in step 3, with the number incremented by one.
 9. Repeat steps 4 through 7 to print as many sequentially numbered labels as you want.
 10. To quit the numbered label operation, press **ESC** and then **SET**.

To store a numbering format

1. Perform steps 1 to 7 to create the numbering format so the following is on the screen.



2. Use **^** and **v** to move the highlighting to "STORE" and then press **SET**.
3. Input up to five characters for the name of the numbering format, and then press **SET**.
4. Press **SET** to store the numbering format or **ESC** to abort the operation without storing anything.
5. Use **^** and **v** to move the highlighting to "EXIT" and then press **SET**.
6. Press **SET** to end the operation.

To recall a numbering format from memory

1. While the NUMBERING menu is on the display, use **^** and **v** to move the highlighting to "RECALL" and then press **SET**.
2. Use **^** and **v** to display the name of the numbering format you want, and then press **SET** to recall it.

3. Now you can make changes in the numbering format and print it or store it as a new format.

To delete a numbering format from memory

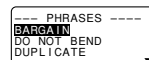
1. While the NUMBERING menu is on the display, use **^** and **v** to move the highlighting to "DELETE" and then press **SET**.
2. Use **^** and **v** to display the name of the numbering format you want, and then press **SET** to delete it.
3. Press **SET** to delete the numbering format.

PHRASES

A collection of preset English phrases can be recalled quickly and easily when you need them. See page E-26 for a complete list of the preset phrases that are available.

To print a preset phrase

1. While the PRESETS menu is on the display, use **^** and **v** to move the highlighting to "PHRASES" and then press **SET**.



2. Use **^** and **v** to scroll through the preset phrases until the one you want is highlighted and then press **SET**.
3. Use **^** and **v** to highlight "PRINT", then press **SET** to print the phrase.
4. Use **^** and **v** to move the highlighting to "EXIT" and then press **SET** to end the operation.

Part 11 Stamp Printing

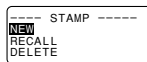
The stamp printing feature lets you create your own stamps using a selection of various formats. Then you can print on special stamp tape and attach the finished tape to an optionally available stamp holder.

When using the ST-15 stamp holder, select NL (10 × 55mm) as the stamp holder type in step 3 of the procedure described below.

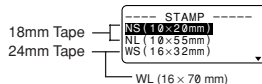
Important! Note that an optional special stamp tape cartridge and stamp tape holder is required in order to create a pre-inked stamp. Contact your dealer to purchase the necessary tape and holder. Load the special stamp tape before performing the following procedure.

To create a new stamp label

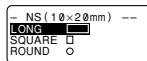
1. Press **STAMP**.



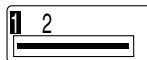
2. Use \wedge and \vee to move the highlighting to "NEW" and then press **SET**.



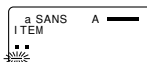
3. Use \wedge and \vee to move the highlighting to the stamp holder model that you will be using with your stamp tape and then press **SET**.



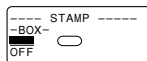
4. Select the type of frame you want to use and press **SET**.



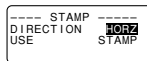
- The number of layouts that appear on the right display depends on the type of stamp holder you are using.
5. Use \leftarrow and \rightarrow to select the layout that you want to use and then press **SET**.



6. Input the text you want to include in each block, and then press **SET** to advance to the next block.
- To leave a block blank, press **SET** without inputting anything.
- When you press **SET** after inputting the text for the last block, the following menu appears.



7. Use \wedge , \vee , \leftarrow and \rightarrow to select a box type and then press **SET**.



- If you select "ROUND", proceed immediately to step 8.
- If you select "LONG FRAME", you will then have to select a specific frame type before to proceed to step 8.

8. Use \wedge and \vee to move the highlighting and use \leftarrow and \rightarrow to specify the setting and then press **SET**.



9. Use \wedge and \vee to move the highlighting to "PRINT" and then press **SET** to execute it.
- After printing is complete, operate the tape cut lever to cut the tape.
10. Use \wedge and \vee to move the highlighting to "EXIT" and then press **SET**.
11. Press **SET** to end the operation.

To store a stamp label

1. Perform steps 1 through 9 under "To create a new stamp label" to create the label.
2. Use \wedge and \vee to move the highlighting to "STORE" and then press **SET**.
3. Input up to five characters for the name of the label, and then press **SET**.
4. Press **SET** to store the label or **ESC** to abort the operation without storing anything.
5. Use \wedge and \vee to move the highlighting to "EXIT" and then press **SET**.
6. Press **SET** to end the operation.

To recall a stamp label from memory

1. While the STAMP menu is on the display, use \wedge and \vee to move the highlighting to "RECALL" and then press **SET**.
2. Use \wedge and \vee to display the name of the label you want, and then press **SET** to recall it.
3. Press **SET**. Now you can make any changes in the label contents and then print it, or simply print the label without making any changes.
- To make changes in the label contents, use the procedures starting from step 6 under "To create a new stamp label".
- To print the label without making any changes, perform the procedures starting from step 6 without in putting any characters.

To delete a stamp label from memory

1. While the STAMP menu is on the display, use \wedge and \vee to move the highlighting to "DELETE" and then press **SET**.
2. Use \wedge and \vee to display the name of the label you want, and then press **SET** to delete it.
3. Press **SET** to delete the label.

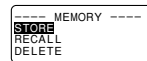
- There are two stamp tape sizes: 18mm and 24mm. There are also four types of stamp holders: large and small for 24mm tape, and large and small for 18mm tape. Note that certain stamp tape and stamp holders may not be available in some areas.

Part 12 Memory

This part of the manual tells you how to store text data in memory for instant recall when you need it. You can store up to 2,500 characters in memory.

To store data

1. Input the text you want to store, and then press **MEMORY**.



2. Use \wedge and \vee to move the highlighting to "STORE" and then press **SET**.
3. Press **SET** to store the text in memory or **ESC** to abort the store procedure without storing anything.

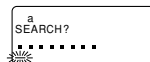
Recalling Text From Memory

There are two methods you can use to recall text: sequential search and character search. With sequential search, you scroll through memory contents until you find what you want. With character search, you input up to eight characters and the label printer searches through its memory to find them for you.

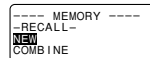
To recall memory text using sequential search

1. Press **MEMORY**.

- Use **^** and **v** to move the highlighting to "RECALL" and then press **SET**.



- Press **SET** without inputting anything and the first item stored in memory appears.
- Use **^** and **v** to scroll through the items in memory until the one you want is on the display.
- Press **SET**.



- What you do next depends on whether or not you want to delete existing text on the display or combine the recalled text with existing text.

NEW

- Use **^** and **v** to move the highlighting to "NEW".
- Press **SET** to delete any text that was previously on the input screen and replace it with the recalled text.

COMBINE

- Use **^** and **v** to move the highlighting to "COMBINE" and then press **SET**.
- Use **<** and **>** to move the cursor to the location where you want the recalled text inserted and then press **SET**.

To recall memory text using character search

- Press **MEMORY**.
- Use **^** and **v** to move the highlighting to "RECALL" and then press **SET**.
- Input the characters you want and then press **SET** to start the search operation.
- The first item that starts with the characters you input appears on the screen.
- The characters must come at the very beginning of the item. The label printer does not find the characters if they come at the beginning of a block or line inside the item.
- Continue from step 4 under "To recall memory text using sequential search."

To delete memory text

- Press **MEMORY**.
- Use **^** and **v** to move the highlighting to "DELETE" and then press **SET**.

- Use either sequential search or character search to display the memory text you want to delete and then press **SET**.
- Press **SET** to delete the data.

Part 13 Data Communication

- The FA-920 makes it possible for you to use the label printer to print data created on your personal computer.

Important!

- Data communication with a personal computer requires Computer Link software and a data communication cable.
- See the documentation that comes with the Computer Link software for details on how to operate it.
- Data communication with your label printer requires a specific computer system configuration as described in the documentation that comes with the Computer Link software. You may not be able to exchange data with a personal computer that does not conform with the required system configuration.
- After finishing with a data communication operation (including printing), press **ESC** to exit the Data Communication Mode. All other functions are disabled while data communication is being performed.

Part 14 Reference

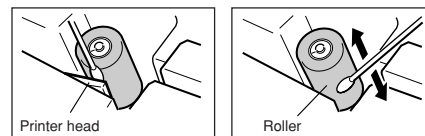
This section contains information about the label printer that you can use as reference when you need it.

Cleaning the Printer Head and Roller

A dirty printer head and roller can result in poor printing quality. If you have problems with print quality, use the following procedure to clean the printer head and roller.

To clean the printer head and roller

- Make sure the label printer is turned off.
- Press the tape cartridge compartment cover release and open the compartment cover.
- Remove the tape cartridge.
- Use a cotton swab dipped in alcohol to clean the printer head and roller as shown in the illustration.



- Replace the tape cartridge and close the compartment cover.

Initial Settings

The following are the initial settings of the label printer whenever you turn it power on or reset the unit.

Item	Power On	Reset
Display	Cleared	Cleared
Memory	Retained	Cleared
User Characters	Retained	Cleared
Horz/Vert	Horizontal	Horizontal
Text Alignment	Left	Left
Justification	Justified	Justified
Character Spacing	Narrow	Narrow
Block Length	Auto	Auto
Mirror Printing	Normal	Normal
Proportional Spacing	On	On
Smoothing	On	On
Block Spacing	Narrow	Narrow
Auto Feed	Long	Long
Tape Length	Auto	Auto
Block Alignment	****(Left)	****(Left)
Default Font	Retained	Sans-Serif
Insert/Overwrite	Retained	Insert
Contrast (32 levels)	Retained	Level 17

ENLARGED Label Measurements

	Tape Width	Size Increase	Character Size	Resulting Tape Width
12mm	2 pieces	8 × 8 times	24 × 24mm	24mm
	3 pieces	12 × 12 times	36 × 36mm	36mm
	4 pieces	16 × 16 times	48 × 48mm	48mm
18mm	2 pieces	8 × 8 times	24 × 24mm	30mm
	3 pieces	12 × 12 times	36 × 36mm	42mm
	4 pieces	16 × 16 times	48 × 48mm	54mm
	4 pieces Large	20 × 20 times	60 × 60mm	63mm
24mm	2 pieces	8 × 8 times	24 × 24mm	36mm
	3 pieces	12 × 12 times	36 × 36mm	48mm
	4 pieces	16 × 16 times	48 × 48mm	60mm
	4 pieces Large	20 × 20 times	60 × 60mm	69mm

Phrases

BARGAIN



DUPLICATE



NO SMOKING



SECRET



DO NOT BEND



FRAGILE



SALE



SPECIMEN



Bar Code Specifications

Bar Code Type	Check Digit *1	Print Digits *3	Input Digits *4	Automatically Assigned Number of Digits		Input Characters *8
					Check Digit *1	
EAN-13	Yes	13	12	—	1	Numerals
EAN-8	Yes	8	7	—	1	Numerals
UPC-A	Yes	12	11	—	1	Numerals
UPC-E	(Yes) *2	6	6	—	—	Numerals
ITF	No	4 to 22	4 to 22 (even only) *5	—	—	Numerals
	Yes	4 to 22	3 to 21 (odd only) *6	—	1	
CODE39	No	4 to 22	2 to 20	2 *7	—	Alpha-numeric characters; hyphen; period; space; dollar sign; slash; plus sign; percent sign
	Yes	4 to 22	1 to 19	2 *7	1	
CODABAR	No	4 to 22	4 to 22	—	—	Numerals; hyphen; period; dollar sign; colon; slash; plus sign; letters A through D (first and final digits only) *9
	Yes	4 to 22	3 to 21	—	1	

*1 The check digit is automatically calculated in accordance with input data. For EAN-13, EAN-8, UPC-A, and ITF, the check digit is appended at the end of the printed digits. For CODE39 and CODABAR, the check digit is appended one digit before the final digit (when a check digit is used).

*2 UPC-E includes a check digit, but it is not printed as a numeral below the bar code.

*3 The number of digits printed below a bar code equals the input characters plus automatically appended characters.

*4 An error message is displayed whenever there are insufficient digits. The unit will not allow input of too many digits.

*5 An error message appears and printing is impossible if an odd number of digits are input when an ITF check digit is not being used. Append a zero to the beginning of the digits and re-input.

*6 An error message appears and printing is impossible if an even number of digits are input when an ITF check digit is being used. Append a zero to the beginning of the digits and re-input.

*7 Both the start code and end stop code of CODE39 must be asterisks.

*8 An error message appears and printing is impossible if any characters other than those specified here are used.

*9 With CODABAR, A, B, C, or D can be used as the start code and stop code. An error message appears and printing is impossible if any other character is used.

Troubleshooting

• Power Supply

Nothing appears on the display.	
Possible Cause	Action
Improper display contrast setting	Adjust display contrast.
Low batteries	Replace batteries.
Batteries loaded incorrectly	Remove batteries and reload them correctly.
AC adaptor is not connected correctly.	Make sure the AC adaptor is connected correctly.

• Text Input

Cannot input text.	
Possible Cause	Action
FUNC key has been pressed.	Press ESC to clear FUNC key operation.

Tape does not come out when PRINT is pressed.	
Possible Cause	Action
Tape cartridge compartment cover is not closed completely.	Securely close the tape cartridge cover.
No more tape left in the cartridge.	Replace the tape cartridge with a new one.
Tape jam	Remove the tape cartridge and pull out the jammed tape by hand. Cut off excess tape with scissors, and carefully replace the cartridge into the label printer. Important! Never allow the tape outlet to become blocked and never touch tape as it is being fed during printing.

Tape comes out when PRINT is pressed, but nothing is printed on it.	
Possible Cause	Action
Only blank spaces were input.	Input the text you want to print.

Printing is blurred, blotched, broken, etc.	
Possible Cause	Action
Improper print density setting	Adjust the print density setting.
Improper loading of the cartridge	Remove the tape cartridge and reload it correctly.
Dirty print head or rubber roller	Clean the printer head and roller.

Ink ribbon is being fed from the tape outlet along with the tape.	
Possible Cause	Action
Ink ribbon cassette loaded while the ink ribbon is slack.	Remove the ink ribbon cassette and check to make sure the ink ribbon is not broken. Next, take up any slack in the ink ribbon and then reload the tape cartridge. Important! <ul style="list-style-type: none"> Before loading an ink ribbon cassette into the label printer, always make sure you take up any slack in the ink ribbon first. If the ink ribbon is broken, you must change to another ink ribbon cassette.

• Tape Cutting

Cannot cut tape.	
Possible Cause	Action
Tape cutter blade is dull.	Take the label printer to the dealer from whom you purchased it to have the tape cutter blade replaced.

Printed text is cut off by tape cut operation.	
Possible Cause	Action
The printer is set up for manual tape feed.	Be sure to press the FEED key before performing the tape cut operation. Important! When the printer is set up for manual tape feed, the tape is not fed automatically after printing is complete.
Out of tape	Replace the tape cartridge with a new one.

• Using Labels

Label will not adhere to a surface.	
Possible Cause	Action
The backing paper is still on the back of the tape.	Peel the backing paper from the back of the tape to expose the adhesive.
Surface is unsuitable for affixing a tape.	Labels do not adhere well to surfaces that are rough, wet, oily, or dirty.

• Data Communication

Cannot transfer data.	
Possible Cause	Action
Poor data communication cable connection	Make sure the data communication cable jacks are connected securely.
Passage of too much time after setting up for data communication	Be sure to start actual data transfer within about 20 seconds after pressing SET to start a data communication operation.

Error Messages

Message	Cause and Recommended Action
SAME NAME ALREADY USED!	Name being assigned to a preset format is already used. Use a different name.
DATA ITEM NOT FOUND!	No match for characters specified for a search operation. Change to other characters or use sequential search.
TOO MANY LINES!	Too many lines to be printed. Reduce the number of lines or use a wider tape.
TOO MANY LINES TO FRAME!	Too many lines for printing with a frame. Reduce the number of lines or use a wider tape.
ODD NUMBER OF DIGITS! CANNOT PRINT	<ul style="list-style-type: none"> • Odd number of digits input for ITF bar code when a check digit is not being used. Add a 0 (zero) as the first digit and re-input. • Even number of digits input for ITF bar code when a check digit is being used. Add a 0 (zero) as the first digit and re-input.
NOT ENOUGH DIGITS! CANNOT PRINT	Bar code print printed does not have enough digits. Re-input with the proper number of digits.
RESET!	Memory has not been initialized yet. Perform the reset operation.
COMMUNICATION ERROR!	Label printer was unable to receive data being sent from an external source. Check cable connections and parameter settings.
POWER OFF THEN LOAD A TAPE CARTRIDGE	Printing operation performed while the tape cartridge compartment is empty. Load a tape cartridge and try again.
TEXT TOO LONG!	Text being printed does not fit within a fixed-length tape. Shorten the text or change the tape length.

Message	Cause and Recommended Action
TEXT TOO LONG!	Text being printed with a frame does not fit within a fixed-length tape. Shorten the text or change the tape length.
DATA ERROR! RESET!	Print operation attempted when memory is not initialized. Perform the reset operation and try again.
DATA ERROR! RESET!	Memory data has been deleted or corrupted because battery went dead.
DATA ERROR! RESET!	Text storage attempted when memory is not initialized. Perform the reset operation and try again.
NO DATA!	Recall or delete operation attempted while there is no more data in memory. Press SET to clear the error message.
TOO MANY BL!	Attempt to input a 16th block mark (only 15 are allowed). Delete block marks you don't need.
ILLEGAL CHARACTERS! CANNOT PRINT	<ul style="list-style-type: none"> • Invalid characters used in a bar code. Change to allowed characters. • Letter other than A, B, C, or D input for CODABAR bar code start code or end code. Use only the allowable characters.
MEMORY FULL!	Memory used for storage is full. Delete data in memory that you no longer need.
NOT ENOUGH MEMORY!	<p>Operation being attempted would cause memory used for storage to become full. To store more, delete data in memory that you no longer need.</p> <p>If you don't want to store more, press SET to clear the message and then continue with the operation.</p>

Message	Cause and Recommended Action
CANNOT COMBINE!	Recalling text into existing text results in more than 255 characters. Reduce the number of characters in existing text. Recall operation incorporating recalled text into existing text would result in more than 15 block marks. Reduce the number of block marks in the existing text and try again.
INPUT TEXT!	Attempt to register characters when no characters are input. Input characters and try again.
REPLACE BATTERIES	Replace batteries.

Specifications

Model: KL-8100

Input

Keyboard Layout: Typewriter (QWERTY)

Character Types

Alpha (English and other languages): 52 (A~Z, a~z), 99 (Á, ß, Ç, Ž etc.)

Numbers: 10

Symbols/Greek and Russian Characters: 306

Illustrations: 50

Display

Type: Liquid crystal display

Columns: 12

Lines: 2

Printing

Type: Thermal transfer

Speed: Approximately 12mm/second

Width: 4mm (6mm tape); 8mm (9mm tape); 10mm (12mm tape); 16mm (18/24mm tape)

Character Matrix: 48 × 48 dots

Character fonts: New Sans-serif, New Sans-serif Italic, New Roman, New Roman Italic, Courier, Logo Style, Rich Stroke, Stencil, Bold Script, Black Letter

Character spacing: NONE, NARROW, MEDIUM, WIDE

Tape Length: 0.0cm to 99.9cm (FIX); longer lengths possible with AUTO

Block Length: 0.0cm to 99.9cm (FIX); longer lengths possible with AUTO

Character Effects: Shading, underline, box

Character Styles: Normal, bold, outline, shadow, raised

Character Sizes: 72 from 1 × 1 to 5 × 8 and 1 × 1S to 4 × 8S

Number of Lines:

6mm tape: 2 lines

9mm tape: 4 lines

12mm tape: 5 lines

18mm or 24mm tape: 8 lines

Frames: 55 types

Preset Formats: 74 types

Preset Phrases: 8 types

Memory

Text: up to 2,500 characters

General

Main power supply: Specified for the AD-A12070 AC adaptor or eight AA-size alkaline batteries

Battery life: Approximately 3 tape cartridge (continuous printing)

Memory Back-up Battery: Built-in

Battery life: Marked on the sticker on the back of the label printer.

Be sure to have the battery replaced by the date noted on the sticker on the back of the label printer. Have the battery replaced by the retailer where you purchased the label printer or by an authorized CASIO service provider. Note that you will be charged for battery replacement.

Power consumption: 12 W

Auto Power Off: Approximately six minutes after last key operation

Ambient Temperature: 10° to 35°C (50° to 95°F)

Dimensions: 63.5 (H) × 196 (W) × 195 (D) mm
(2 1/2" (H) × 7 11/16" (W) × 7 11/16" (D))

Weight: 580g (20.5oz) (except main batteries)

CASIO®

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